

REMARKS

By this amendment, Claims 1, 10, 18, 19, and 28 are amended. No claims have been added or canceled. Hence, Claims 1–36 are pending in the application.

Each issue raised in the Office Action mailed November 13, 2008, is addressed hereinafter.

I. ISSUES RELATING TO CLAIM AMENDMENTS

The amendments to the claims as indicated herein do not add any new matter to this application. Support for the amendments made to the claims can be found in at least the following paragraphs of the Specification: Paragraph [0029–0030] (“In particular, transport information or application layer information embedded in an ICMP packet may be used for authenticating the ICMP packet. ... The sequence number identifies a TCP segment that caused a downstream node to identify an error and to generate the ICMP packet in response to the error.”).

II. ISSUES NOT RELATING TO ANY CITED ART — CLAIM 18: INFORMALITIES

Claim 18 is objected to for allegedly having the informality of disclosing a carrier wave. This is incorrect. A choice to disclose particular subject matter is not an informality. Claim 18 does not encompass a carrier wave, or other non-statutory subject matter. In particular, Paragraph [0048] states: “Non-volatile media includes, for example, optical or magnetic disks, such as storage device 410. Volatile media includes dynamic memory, such as main memory 406.” Accordingly, “non-volatile media” and “volatile media” encompass only statutory subject matter. Reconsideration is respectfully reconsidered.

III. ISSUES RELATING TO CITED PRIOR ART

A. CLAIMS 1–28 —TALPADE IN VIEW OF FAN

Claims 1–28 are rejected under 35 U.S.C. § 103(a) as allegedly obvious over U.S. Pub No. 2004/0148520, by Talpade et al. (“Talpade”), in view of U.S. Patent No. 6,219,706, issued to Fan et al (“Fan”). Based on the following arguments, the rejections are respectfully traversed.

Independent Claim 1 recites:

- receiving an ICMP packet, wherein the ICMP packet carries a packet sequence value that is associated with a connection in a connection-oriented transport protocol, and **that identifies a transport protocol segment that caused a node to identify an error and to generate the ICMP packet in response to the error;**
- obtaining the packet sequence value from the ICMP packet;
- authenticating the ICMP packet by determining if the packet sequence value from the ICMP packet is valid; and
- responding to the ICMP packet by updating a parameter value associated with the transport protocol connection only if the packet sequence value is determined to be valid.

(Emphases added.) A rejection based on obviousness cannot be upheld because a combination of Talpade in view of Fan fails to teach at least one or more features of Claim 1 as recited above.

Presently, Claim 1 recites “a packet sequence value ... that identifies a transport protocol segment that caused a node to identify an error and to generate the ICMP packet in response to the error.” All the steps of claim 1 are performed in relation to this packet sequence value as recited in Claim 1. No combination of Talpade in view of Fan teaches this feature. Talpade discloses analyzing the packet header fields for ICMP packets. (“The sensor filters analyze packet headers looking for field values beyond the defined range of valid values.” Talpade, Paragraph [0020].) However, Talpade does not disclose a packet sequence value that “identifies a transport protocol segment that caused a node to identify an error and to generate the ICMP packet in response to the error.”

Fan fails to “fill the gaps” left behind by Talpade. In contrast to Claim 1, Fan does not disclose any ICMP packets; instead, Fan discloses that the received packet is a UDP or TCP SYN packet. Fan discloses examining the packet header of the received UDP or TCP SYN packet, which contains a packet sequence value. (Fan, Col. 10: lines 27–37.) Examining the packet sequence value found in a packet header of the received UDP or TCP SYN packet does not teach **the packet sequence value from an ICMP packet**, as recited in Claim 1. It is clear

error to equate the “packet sequence value” that is examined in Fan with the “packet sequence value” as recited in Claim 1 because doing so ignores the explicit recitation that Claim 1’s packet sequence value “identifies a transport protocol segment that caused a node to identify an error and to generate the ICMP packet in response to the error.”

Because no combination of Talpade and Fan teaches one or more express features of Claim 1, it is respectfully submitted that Claim 1 is allowable over Talpade in view of Fan, and is condition for allowance.

Claim 10

Independent Claim 10 recites:

receiving, at a TCP endpoint node in a TCP/IP packet-switched network, an ICMP packet, wherein the ICMP packet carries a packet sequence value that is associated with a TCP connection, and that identifies a TCP segment that caused a node to identify an error and to generate the ICMP packet in response to the error;

obtaining a packet sequence number from the ICMP packet;

authenticating the ICMP packet by determining if the packet sequence number from the ICMP packet is valid; and

responding to the ICMP packet by updating a maximum transmission unit (MTU) value associated with the TCP connection only if the packet sequence number is determined to be valid.

Claim 10 recites “packet sequence value ... that identifies a TCP segment that caused a node to identify an error and to generate the ICMP packet in response to the error.”

Accordingly, Claim 10 is allowable over the references for the same reasons stated above with respect to Claim 1.

Regarding “responding to the ICMP packet by **updating a maximum transmission unit (MTU) value associated with the TCP connection** only if the packet sequence number is determined to be valid,” the Office Action, in clear error, states the following:

it would have been obvious to one having ordinary skill in the art to allow traffic flow by updating MTU values because allocating MTU for network traffic is well known in the art.

However, it is clear error to assert an obviousness rejection on the basis that “allocating MTU for network traffic is well known in the art” because it ignores express features of Claim 1. Claim 1 does not merely recite “updating a maximum transmission unit (MTU) value associated with the TCP connection.” Claim 1 recites the updating step that is “responding to the ICMP packet,” **and** under the express condition that the updating step is performed “only if the packet sequence number is determined to be valid.” It is clear error to ignore those express features of Claim 1 in making an obviousness rejection.

Because no combination of Talpade and Fan teaches one or more express features of Claim 10, it is respectfully submitted that Claim 10 is allowable over Talpade in view of Fan, and is condition for allowance.

Independent Claims 18, 19, and 28 include features similar to Claim 1, except in the context of computer-readable media, in means-plus-function form, or as an apparatus claim. It is therefore respectfully submitted that Claims 18, 19, and 28 are patentable over Talpade in view of Fan for at least the reasons given above with respect to Claim 1.

Claims 29–36, 11–17, and 20–27 are dependent claims, each of which depends (directly or indirectly) on Claims 10, 18, 19, and 28. In addition, each of Claims 29–36, 11–17, and 20–27 introduces one or more additional features that independently render it patentable. Due to the fundamental differences already identified, to expedite the positive resolution of this case, a separate discussion of the features of Claims 29–36, 11–17, and 20–27 is not included at this time. The Applicant reserves the right to further point out the differences between the cited art and the novel features recited in the dependent claims.

In view of the foregoing, it is respectfully asserted that the claims are now in condition for allowance.

CONCLUSION

For the reason set forth above, all of the pending claims are in condition for allowance. The Examiner is respectfully requested to contact the undersigned by telephone relating to any issue that would advance examination of the present application.

If any fees are due with this Reply, the Commissioner is hereby authorized to charge any applicable fees and/or credit any overpayments to our Deposit Account No. 50-1302.

Respectfully submitted,
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